

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK LELENTAL,
CHARLES C. ANDERSON,
JOHN M. POCHAN,
JAMES L. WAKLEY and
JAMES F. ELMAN

Appeal 2006-2950
Application 10/036,126
Technology Center 1700

Decided: March 23, 2007

Before EDWARD C. KIMLIN, CHUNG K. PAK, and CATHERINE Q. TIMM, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the Examiner's final rejection of claims 1 through 12 and 17 through 19, all of the claims pending in the above-identified application. We have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134.

I. APPEALED SUBJECT MATTER

The subject matter on appeal relates to compositions useful for “forming an electrically conductive antistatic layer.” *See* the Specification 9. These compositions are said to include “aqueous mixtures of an electronically conductive polymer, a neutral charge conductivity enhancer and a hydrophilic polymeric binder.” *See* the Specification 9. The electronically conductive polymer is defined to include the myriad of polymers described at pages 10 and 11 of the Specification. Some of the examples are substituted or unsubstituted thiophene-containing polymers and polyanions. *See* the Specification 11. The neutral charge conductivity enhancer is defined to include the myriad of compounds listed at page 13 of the Specification. “Particularly preferred neutral charge conductivity enhancers are: sugar and sugar derivatives... sugar alcohols such as sorbitol...alcohols such as ethylene glycol, glycerol...” *See* the Specification 13. The hydrophilic polymeric binder is defined to include the myriad of compounds listed at page 12 of the Specification. The Specification specifically states that:

Polymeric film-forming hydrophilic binders useful in compositions for electrically conductive compositions according to this invention can include, but are not limited to, water-soluble or water-dispersible hydrophilic polymers such as gelatin, gelatin derivatives, maleic acid anhydride copolymers, cellulose derivatives...synthetic hydrophilic polymers...that would be readily apparent to one skilled in the imaging arts. Gelatin and gelatin derivatives are the preferred binders in the practice of this invention.

Specification 12-13.

The claims on appeal limit the hydrophilic binder employed to gelatin or gelatin derivatives. Details of the appealed subject matter are recited in illustrative claim 1, which is reproduced below:

1. A composition for forming an electrically conductive antistatic layer comprises:

electronically conductive polymer particles;

a neutral-charge conductivity enhancer; and

a hydrophilic polymeric binder that is gelatin or a gelatin derivative.

II. PRIOR ART

As evidence of unpatentability of the claimed subject matter, the Examiner relies upon the following references:

Muys	US 5,391,472	Feb. 21, 1995
Gardner	US 5,910,385	Jun. 8, 1999

III. REJECTION

The Examiner has rejected claims 1 through 12 and 17 through 19 under 35 U.S.C. § 103(a) as unpatentable over the disclosures of Muys and Gardner.

IV. ISSUES

The dispositive question is, therefore, whether one of ordinary skill in the art would have been led to employ a gelatin or gelatin derivative in the

electrically conductive antistatic coating composition of the type described in Muys within the meaning of 35 U.S.C. § 103.

V. PRINCIPLES OF LAW

Under 35 U.S.C. §103, the obviousness of an invention cannot be established by combining the teachings of the prior art references absent some teaching, suggestion or incentive supporting the combination.

ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). This does not mean that the cited prior art references must specifically suggest making the combination. *B.F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996); *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988). Rather, the test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. *In re Young*, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In evaluating the prior art references for a suggestion, it is proper to take into account not only the specific teachings of the references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Optimization of a variable which recognized in the prior art to be a result effective variable would ordinarily be within the skill in the art. *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

While there is nothing inherently wrong with using a functional limitation to define a product or an article, such a usage has a risk. When a claimed product and a product suggested by the prior art reasonably appear to be substantially the same, the burden is shifted to the Appellants to prove that the suggested prior art product does not possess the claimed functional characteristics. *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997); *In re Best*, 562 F.2d 1252, 1255-56, 195 USPQ 430, 433-34 (CCPA 1977).

“[M]ere statement of a new use for an otherwise old or obvious composition cannot render a claim to the composition patentable.” *In re Zierden*, 411 F.2d 1325, 1328, 162 USPQ 102, 104 (CCPA 1969).

“[T]he term ‘comprises’ permits the inclusion of other steps, elements, or materials.” *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 802 (CCPA 1981).

VI. FINDINGS OF FACT AND ANALYSES

The Examiner has found (Answer 3-4), and the Appellants have not specifically challenged (Br. 2-8 and Reply Br. 1-3) that:

Muys et al disclose transparent-antistatic coating compositions comprising:

- (i). Po[l]ythiophene/polyanion dispersion with a particle size of 5 nm-1 micron, wherein [the] polyanion compound being polyacrylic acid or polystyrene sulfonic acid (col-3, Ln-60 to Col-4, Ln:24; Col 5, Ln 16-65; Col-10, Ln: 8-54; Col-12, Table-1)<Limitation of instant Claims 1-2, 4-5, 10, 17-19>,
- (ii). Various solvents/additives such as phenolic compounds, aliphatic polyhydroxy compounds such as glycerol and sorbitol<Limitation of instant Claims: 1, 3, 6, 7, 9, and 11>, monomeric carboxylic acids such as furancarboxylic acid and

NMP<Limitation of instant Claims: 1, 3, 6, 7, 8, and 11-12>(Col-7, Lines : 25-53, Col-12, Table 1. The coating compositions given in Table-1(Col-12) would meet the ratio limitations in instant claims 2-3. NMP, glycerol, sorbitol and polysaccharides would meet the limitation of neutral-charge conductivity enhancers in the instant claim-1.

(iii). A latex polymer binder having hydrophilic functionality such as copolymers of vinylidene fluoride and unsaturated carboxylic acid (Col-6, Lines: 55-60, Col-7, lines: 6-10, Col-9, Lines: 5-14, Col-12, Table-1)

The dispositive question is, therefore, whether one of ordinary skill in the art would have been led to employ a gelatin or gelatin derivative in the electrically conductive antistatic coating composition of the type described in Muys. On this record, we answer this question in the affirmative.

For the findings of fact set forth in the Answer and below, we concur with the Examiner that the combined disclosures of Muys and Gardener would have suggested employing, *inter alia*, gelatins or gelatin derivatives as a binder for the antistatic coating composition of the type described in Muys. As indicated *supra*, there is no dispute that the latex polymer described in Muys is used as a binder. Indeed, the Appellants have acknowledged that “Muys et al. uses the latex polymer (not gelatin) to disperse the conductive particles (col. 3, ll. 51-55) and to provide suitable adhesion between the polyester film support (col. 6, ll. 14-18) and overlying layers (Br. 3).” Also, there is no doubt that the latex polymer is hydrophilic. Muys teaches that the latex polymer employed has hydrophilic functionality as indicated *supra*. The Appellants have also acknowledged that “Muys et al. is directed to providing ‘aqueous’ formulations in which the latex binder is dispersed (Col., lines 42-64) (Br. 4).” Compare this description with the

Appellants' definition of "hydrophilic binder" described at page 12 of the Specification.

Although Muys does not mention employing gelatins or gelatin derivatives as a binder for its electrically conductive antistatic coating composition, the Examiner has correctly found that Gardener teaches gelatins or gelatin derivatives to be conventional film-forming binders useful for electrically conductive antistatic coating compositions, including those containing water. Specifically, Gardener teaches (col. 15, ll. 10-32 and 40-52):

A wide variety of film-forming binders are useful as one skilled in the art would readily appreciate. Thus, the materials listed herein are representative only, and not meant to be limiting any way ... Examples include methyl or ethyl methacrylate homo- and copolymers...polyurethanes...gelatin (including alkali- or acid-treated gelatins), gelatin derivatives (such as acetylated gelatin and phthalated gelatin), polysaccharides (such as dextran, gum arabic and zein), or gelatin-like synthetic polymers...

...

The film-forming binder is dissolved in a second solvent...

Preferred second solvents are water, dichloromethane (or other chlorinated solvents).

Implicit in this teaching is that it is well within the ambit of one of ordinary skill in the art to select appropriate or optimum film-forming binders, including gelatins and their derivatives, for given electrically conductive antistatic coating compositions, including those containing water. *In re Preda*, 401 F.2d at 826, 159 USPQ at 344. This is especially true in this case since Gardener lists the latex polymers taught by Muys, e.g.,

hydrophilic ethyl methacrylate homo- and copolymers and polyurethanes, together with gelatins and their derivatives, as exemplified film-forming binders useful for given electrically conductive antistatic coating compositions. *Compare* the Answer 5 with Brief 6. Therefore, we determine that one of ordinary skill in the art would have been led to employ appropriate or optimum film-forming binders, including latex polymers, gelatins and gelatin derivatives, as the binder for the electrically conductive antistatic composition of the type described in Muys, with a reasonable expectation of successfully imparting the desired binding effect (adhesion). *In re Boesch*, 617 F.2d at 276, 205 USPQ at 219 .

In any event, we note that Muys teaches (col. 8, ll.16-19) that:

The antistatic polymer layer of the present invention can be coated with a hydrophilic subbing layer containing a certain amount of hydrophilic colloid such as gelatin.

We find that this suggested combination results in the claimed composition. *In re Zierden*, 411 F.2d at 1328, 162 USPQ at 104. This is especially true since the claims on appeal, by virtue of using the transitional phrase “comprises,” do not preclude additional components which are not specifically recited. *In re Baxter*, 656 F.2d at 686, 210 USPQ at 802. Although the combination is not said to be useful “for forming an electrically conductive antistatic layer,” the Appellants have the burden of showing that such functional limitation renders the claimed composition patentably different from that of Muys since the compositions described by Muys and recited in the claims on appeal contain identical components. *In re Schreiber*, 128 F.3d at 1477, 44 USPQ2d at 1432; *In re Best*, 562 F.2d at 1255-56, 195 USPQ at 433-34. On this record, the Appellants have not

carried such burden. Accordingly, from our perspective, the claimed functional limitation “for forming an electrically conductive antistatic layer” recited in the appealed claims does not preclude the above combination taught by Muys.

Accordingly, for the factual findings set forth above and in the Answer, we concur with the Examiner that Muys and Gardener would have rendered the subject matter recited in claims 1 through 12 and 17 through 19 obvious within the meaning of 35 U.S.C. § 103.

VII. ORDER

The decision of the Examiner is affirmed.

VIII. TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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